Patent Claims:

1. A contactless data carrier with an antenna and a chip, characterized in that on the data carrier are disposed data, which are transmittable to a reading device via an optical data transmission channel, and are disposed data, which are transmittable to a reading device via an antenna-based data transmission channel.

2. The data carrier according to claim 1, characterized in that the chip has storage areas, wherein at least one storage area is freely readable and at least one storage area is only readable after an authentication of data carrier and reading device.

3. The data carrier according to claim 2, characterized in that the second storage area only readable after an authentication has at least one first data record and the freely readable storage area has at least one second data record, which is clearly allocated to the first data record and is derivable from the first data record.

4. The data carrier according to one of the claims 2 or 3, characterized in that the stored data records are stored as data records encrypted with a cryptographic key.

5. The data carrier according to claim 3 or 4, characterized in that the second data record forms a compression value of the first data record.

6. The data carrier according to any of claims 1 to 5, characterized in that on the data carrier a light-sensitive component is disposed, which controls the function of the chip in dependence on the brightness.

7.The data carrier according to any of claims 1 to 6, characterized in that onto the data carrier is applied optically readable information.

8.The data carrier according to claim 7, characterized in that onto the data carrier is applied a matrix code.

9.The data carrier according to claim 7, characterized in that onto the data carrier is applied a bar code.

10.The data carrier according to any of the above claims, characterized in that on the data carrier is disposed a display for representing optical data.

11.The data carrier according to any of the above claims, characterized in that on the data carrier is disposed an illuminant for sending optical signals.

12.The data carrier according to any of the above claims, characterized in that on the data carrier is disposed an optical receiving means for receiving optical signals.

13.The data carrier according to any of the above claims, characterized in that on the data carrier is disposed a loudspeaker.

14.The data carrier according to any of the above claims, characterized in that on the data carrier is disposed a vibration detector.

15.The data carrier according to any of the above claims, characterized in that an authentication requires the use of the two data transmission channels.

16.A method for reliably determining the deliberate use of a contactless data carrier, characterized in that in dependence

on the data to be exchanged between data carrier and reading device in addition to an antenna-based contactless data transmission an optical data transmission can be effected with the help of data disposed on the data carrier.

17. The method according to claim 16, characterized in that the data transmission is effected in a bi-directional fashion.

18. The method according to claim 16 or 17, characterized in that any arbitrary switching between the optical and the antenna-based data transmission is possible.

19. The method according to any of claims 16 to 18, characterized in that at least a one-sided authentication (27, 32) is effected between the reading device and the data carrier.

20. The method according to claim 19, characterized in that the authentication is effected by the optical data transmission.

21. The method according to claim 19 or 20, characterized in that the authentication (27, 32) is effected in such a way that it requires the use of the two data transmission channels.

22. The method according to any of claims 16 to 21, characterized in that a random number is requested via one of the two data transmission channels either the optical or the antenna-based data transmission channel and is transmitted via the respective other data transmission channel.

23. The method according to any of claims 16 to 22, characterized in that for a readout of a first data record (23) in a first procedure step the reading device reads out a

second data record (25), which is allocated to the first data record, and data (20) optically represented on the data carrier.

24. The method according to claim 23, characterized in that

in a second procedure step (26) the reading device forms a value derived from the read-out data and a secret key, that

in a third procedure step on the basis of the derived value the authentication (27) between reading device and data carrier is effected and that

in a fourth procedure step the first data record (23) is read out by the reading device.

25. The method according to claim 23 or 24, characterized in that in a fifth procedure step from the first data record a compression value is formed and in a further procedure step a comparison is effected between the such formed compression value and the second data record.

26. The method according to any of claims 19 to 25, characterized in that the authentication (27, 32) is carried out in the manner of a challenge-response method.

27. A reading device for reading a contactless data carrier, characterized in that it has means for reading optical data.

28. The reading device according to claim 27, characterized in that it has means for sending an optical signal.

29. The reading device according to claim 28, characterized in that it has means for modulating the optical signal.

30. The reading device according to claim 28, characterized in that it has an infrared interface.

31. The reading device according to any of claims 27 to 30, characterized in that it is formed as a mobile terminal.

32. The reading device according to any of claims 27 to 31, characterized in that it has an interface for the near field communication.

33. The reading device according to any of claims 27 to 32 characterized in that it is adapted to read a contactless data carrier according to any of claims 1 to 16.